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60667 7590 04/11/2008 SUN MICROSYSTEMS/FINNEGAN, HENDERSON LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			EXA	EXAMINER	
			TRUVAN, LE	TRUVAN, LEYNNA THANH	
WASHINGIO	N, DC 20001-4413		ART UNIT PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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		Application No.	Applicant(s)		
Office Action Commons		09/457,914	CARONNI ET AL.		
•	Office Action Summary	Examiner	Art Unit		
		LEYNNA T. HA	2135		
Period fo	The MAILING DATE of this communication app or Reply	pears on the cover sheet with the c	correspondence address		
WHIC - Exte after - If NO - Failu Any	ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING Donsions of time may be available under the provisions of 37 CFR 1.1 SIX (6) MONTHS from the mailing date of this communication. O period for reply is specified above, the maximum statutory period of the toreply within the set or extended period for reply will, by statute reply received by the Office later than three months after the mailing ed patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tir will apply and will expire SIX (6) MONTHS from , cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).		
Status					
1)⊠	Responsive to communication(s) filed on <u>05 S</u>	eptember 2007.			
2a) <u></u> ☐	This action is <b>FINAL</b> . 2b)⊠ This action is non-final.				
3)[	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is				
	closed in accordance with the practice under E	Ex parte Quayle, 1935 C.D. 11, 4	53 O.G. 213.		
Disposit	ion of Claims				
5)□ 6)⊠ 7)□	Claim(s) <u>1-3,5,7-11,13-20,22,24-31,33-37,39 a</u> 4a) Of the above claim(s) <u>4,6,12,21,23,32,38 a</u> Claim(s) is/are allowed. Claim(s) <u>1-3,5,7-11,13-20,22,24-31,33-37,39 a</u> Claim(s) is/are objected to. Claim(s) are subject to restriction and/o	nd 40 is/are withdrawn from cons			
Applicat	ion Papers				
9)[	The specification is objected to by the Examine	er.			
10)	The drawing(s) filed on is/are: a) acc				
	Applicant may not request that any objection to the				
11)	Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the Ex	•			
Priority :	under 35 U.S.C. § 119		•		
a)	Acknowledgment is made of a claim for foreign All b) Some * c) None of:  1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority application from the International Bureau See the attached detailed Office action for a list	s have been received. s have been received in Applicat rity documents have been receive u (PCT Rule 17.2(a)).	ion No ed in this National Stage		
Attachmer	• •	· _	·		
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date.					
3) 🔯 Infor	ce of Draftsperson's Patent Drawing Review (P10-948) mation Disclosure Statement(s) (PTO/SB/08) er No(s)/Mail Date 2/28/07 & 10/5/07.	5) Notice of Informal F 6) Other:			

# **DETAILED ACTION**

Claims 1-3, 5, 7-11, 13-20, 22, 24-31, 33-37, 39, and 41-48 are pending.
 Claims 4, 6, 12, 21, 23, 32, 38, and 40 are cancelled.

## Response to Arguments

2. Applicant's arguments, see Pre-Appeal Brief, filed 8/29/2007, with respect to claims 1-3, 5, 7-11, 13-20, 22, 24-31, 33-37, 39, and 41-48 have been fully considered and are persuasive. The Final rejection of claims 1-3, 5, 7-11, 13-20, 22, 24-31, 33-37, 39, and 41-48 has been withdrawn.

Claims 1-3, 5, 7-11, 13-20, 22, 24-31, 33-37, 39, and 41-48 are now rejected under 35 U.S.C. 103(a) as being unpatentable over Shuen (US 5,572,528), in view of Mattaway, et al. (US 6,226,678).

Examiner traverses the argument on pg 3 of the Pre-Brief (8/29/2007) that Mattaway fails to disclose a virtual address for the first node. Shuen is the primary art that suggest communication from one node to another node and uses the router to obtain security context information comprising the virtual address for the first node. Thus, Shuen teaches a virtual address for the first node and that Mattaway is not combined to teach the obviousness of this limitation. Shuen did not clearly discuss without passing through the administrative machine. Therefore, Mattaway is combined with Shuen to teach that it would have been obvious for a person of ordinary skills to transmit a packet from the first process to the second process through the open socket

without passing through the administrative machine because using a server (administrative machine) is for directory and information related services only and to verify a node so that the node can directly communicate with another node (Mattaway on col.12, lines 15-16 and 36-41 and col.26, lines 18-25).

# Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-3, 5, 7-11, 13-20, 22, 24-31, 33-37, 39, and 41-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuen (US 5,572,528), in view of Mattaway, et al. (US 6,226,678).

### As per claims 1, 18, and 35:

Shuen, et al. teaches a method executed in a data processing system for providing communication access between a first process associated with a first node and a second process associated with a second node (col.18, lines 14-43), the method comprising:

sending a request from the first node to an administrative machine (col.23, lines 36-47 and col.25, lines 14-35) to verify a first node identification (col.7, lines 54-57 and col.16, lines 41-55 and col.22, lines 62-65) associated with the first process; (col.8, lines 19-27 and col.9, lines 32-36 and col.23, lines 12-22)

in response to the request, receiving security context information at the first node from the administrative machine (col.23, lines 60-65 and col.25, lines 14-35), the security context information comprising a virtual address for the first node; (col.9, lines 11-15 and col.13, lines 7-8 and 42-48)

appending the security context information for the first process in a process table; (col.12, lines 64-67 and col.13, lines 1-13)

opening a socket between the first process and the second process; and (col.23, lines 26-30)

transmitting a packet from the first process to the second process through the open socket (col.22, lines 13-15 and col.23, lines 8-24) [without passing through the administrative machine], the packet comprising the security context information for the first process in the process table. (col.15, lines 10-35 and col.18, lines 50-65 and col.19, lines 13-15)

(col.8, lines 19-27 and col.9, lines 32-36 and col.23, lines 12-22) The claimed process associated with a node can broadly be given as a function for communication, routing, connection, session, etc. which usually includes packets or messages of information regarding the communication (col.12, lines 41-50 and col.21, lines 15-26). Shuen discloses a node is also referred as a host or mobile host (col.13, lines 50-52) and the claimed administrative machine as a home router. Shuen explains the request (col.23, lines 36-47 and col.25, lines 14-35) to verify a first node

identification associated with the first process involves the mobile host exchanges information with the home router to respond to the mobile host. The exchanged information is a local address comprising local network number and a local node number that corresponds to the local network number that may be obtained from the router which is valid (col.16, lines 41-55 and col.22, lines 62-65). The constant address corresponding to a virtual network and virtual node number created by the home router and uniquely identifying the mobile host throughout a session (col.7, lines 54-57). This information reads on the claimed first node identification associated with the first process. The constant address is the claimed virtual address where a constant address identifies a mobile host. Since the constant address is referenced to a virtual network number, it is called a virtual address (col.9, lines 11-15 and col.13, lines 7-8 and 42-48). The virtual network number and virtual node number are included in the virtual address (col.16, lines 62-67). The claimed without passing through the administrative machine obviously suggests the mobile host directly communicating with another node and not to the router (col.19, lines 13-15). Shuen discloses a mobile host may use its constant address to initiate sessions with a correspondent host (col.18, lines 60-65 and col.22, lines 13-15) and a sequenced packet exchange is an exchange of information according to a protocol by which two nodes may communicate across the network (col.30, lines 24-34). Shuen obviously suggests a first process transmit a packet to the second process through the open socket. However, Shuen did not clearly explain transmitting a packet from the first process to the second process through the open socket without passing through the administrative machine.

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Mattaway discloses the first processing unit 12 is the claimed first node and the second processing unit as the claimed second node. The claimed administrative machine can broadly be given as a server. Whether it is the connection server or mail server (col.8, line 65 - col.9, line 13 and col.12, lines 21-24), Mattaway's invention is for the first processing unit to establish direct communication links to the second processing unit without interacting or going through any server (col.9, lines 52-57 and col.26, lines 18-25). Mattaway discloses uses the server (col.7, lines 9-20) to verify a first node identification associated with the first process (col.3, lines 7-10 and col.18, lines 21-25). Mattaway discloses receiving security context information at the first node from the administrative machine, the security context information comprising a virtual address for the first node (col.7, lines 24-28 and col.18, lines 33-36) and appending the security context information for the first process in a process table (col.18, lines 21-36 and col.20, lines 15-23). A process table obviously is for comparison and matching purposes to verify or validate the received data in the packet (col.18, lines 30-36). The packet comprising the security context information for the first process in the process table (col.22, lines 21-26). Mattaway discloses point-topoint Internet communication of transmitting a packet from the first process to the second process (col.8, lines 28-29) through the open socket without processing by a server (col.8, line 65 – col.9, line 13). The only purpose is for directory and information related services (col.12, lines 36-41 and col.17, lines 17-18). Thus, Mattaway suggests direct communication link between the first process and the second process without passing through a server (col.9, lines 52-57 and col.26, lines 18-25).

Therefore, it would have been obvious for a person of ordinary skills in the art to combine Shuen to teach transmitting a packet from the first process to the second process through the open socket (Mattaway on col.8, lines 28-29) without passing through the administrative machine (Mattaway on col.8, line 65 – col.9, line 13) because using a server (administrative machine) is for directory and information related services only and to verify a node so that the node can directly communicate with another node (Mattaway on col.12, lines 15-16 and 36-41 and col.26, lines 18-25).

As per claims 2, 19, and 36: See Shuen on col.21, lines 54-58 and col.23, lines 6-28; discusses modifying a socket structure so as to accept the security context information.

As per claims 3, 20, and 37: See Shuen on col.16, lines 41-55 and col.23, lines 5-30; discusses receiving the packet at the second process through the socket (Mattaway on col.22, lines 48-50); verifying the security context information received in the packet; and permitting use of the packet if the security context information is verified (Mattaway on col.2, lines 46-50).

As per claims 5, 22, and 39: See Shuen on col.18, lines 52-55 and Mattaway on col.18, lines 21-36; discusses comparing the security context information in the received packet and security context information in another process table.

As per claims 7, 24, and 41: See Shuen on col.10, lines 35-37 and col.22, lines 50-52 and on Mattaway on col.12, lines 36-38; discusses determining whether the first and second process belong to two different linked channels; and permitting use of the packet when the different channels are linked.

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As per claims 8, 25, and 42: See Shuen on col.18, lines 60-65 and col.22, lines 13-15 on Mattaway on col.12, lines36-38; discusses determining whether the first and second process belong to two different linked channels includes initiating a process that spawns two child processes that are connected by a shared-memory region in a memory.

As per claims 9, 26 and 43: See Mattaway on col.3, lines 7-12 and col.16, lines 13-15; discusses permitting use of the packet includes decrypting the packet on a node and authenticating a sender associated with the first process on the node.

As per claims 10 and 27: See Shuen on col.8, lines 20-22 and col.22, lines 5-14; discusses obtaining the security context information from a third process, the security context information comprising a virtual address and a node identification.

As per claims 11, 28 and 45: See Shuen on col.17, lines 13-24 and col.23, lines 5-30; discusses modifying a network stack such that the network stack requires the security context information to be present in the socket structure to transmit.

As per claim 13: See Shuen on col.16, lines 41-55 and col.18, lines 46-49; discusses receiving a key that corresponds to the first node identification from the server.

As per claim 14: See Shuen on col.15, lines 10-35 and Mattaway on col.26, lines 46-50; discusses encrypting a packet transmitted by the first process using the key; and encapsulating the encrypted packet with a header that comprises the first node identification.

As per claim 15: See Shuen on col.16, lines 41-55 and col.18, lines 46-49 and col.22, lines 10-14 and 62-65; discusses a method of claim 1, further comprising: sending a second request from the second node to the server to verify node identification (Mattaway on col.2, lines 46-50); receiving additional security context information comprises from the server, wherein the additional security context information includes a second virtual address for the second node; creating the second process; and appending the security context information for the second process in the process table associated with the second process (Mattaway on col.18, lines 21-36).

#### As per claims 16 and 33:

Shuen teaches a method executed in a data processing system for providing secure communications between a first process associated with a first node and a second process associated with a second node (col.18, lines 14-43), comprising:

obtaining node identification comprising a virtual address from an administrative machine; (col.7, lines 54-57 and col.16, lines 41-55 and col.22, lines 62-65)

including the node identification in a field corresponding to the first process (col.8, lines 19-27 and col.23, lines 12-22) in a process table; (col.15, lines 10-35 and col.18, lines 50-65 and col.19, lines 13-15)

transmitting a datagram that contains the node identification the first process to a socket; and (col.22, lines 13-15 and col.23, lines 8-30)

receiving the datagram at the second process that contains the node identification and a second virtual address, [without passing through the administrative machine]. (col.9, lines 11-15 and col.13, lines 7-8 and 42-48)

The claimed process associated with a node can broadly be given as a function for communication, routing, connection, session, etc. which usually includes packets or messages of information regarding the communication (col.12, lines 41-50 and col.21, lines 15-26). Shuen discloses a node is also referred as a host or mobile host (col.13, lines 50-52) and the claimed administrative machine as a home router. Shuen explains the request (col.23, lines 36-47 and col.25, lines 14-35) to verify a first node identification associated with the first process involves the mobile host exchanges information with the home router to respond to the mobile host. The exchanged information is a local address comprising local network number and a local node number that corresponds to the local network number that may be obtained from the router which is valid (col.16, lines 41-55 and col.22, lines 62-65). The constant address corresponding to a virtual network and virtual node number created by the home router and uniquely identifying the mobile host throughout a session (col.7, lines 54-57). This information reads on the claimed first node identification associated with the first process. The constant address is the claimed virtual address where a constant address identifies a mobile host. Since the constant address is referenced to a virtual network number, it is called a virtual address (col.9, lines 11-15 and col.13, lines 7-8 and 42-48). The virtual network number and virtual node number are included in the virtual address (col.16, lines 62-67). The claimed without passing through the administrative machine obviously suggests the mobile host directly communicating with another node and not to the router (col.19, lines 13-15). Shuen discloses a mobile host may use its constant address to initiate sessions with a correspondent host (col.18,

lines 60-65 and col.22, lines 13-15) and a sequenced packet exchange is an exchange of information according to a protocol by which two nodes may communicate across the network (col.30, lines 24-34). Shuen obviously suggests a first process transmit a packet to the second process through the open socket. However, Shuen did not clearly explain transmitting a packet from the first process to the second process through the open socket without passing through the administrative machine.

Mattaway discloses the first processing unit 12 is the claimed first node and the second processing unit as the claimed second node. The claimed administrative machine can broadly be given as a server. Whether it is the connection server or mail server (col.8, line 65 - col.9, line 13 and col.12, lines 21-24), Mattaway's invention is for the first processing unit to establish direct communication links to the second processing unit without interacting or going through any server (col.9, lines 52-57 and col.26, lines 18-25). Mattaway discloses uses the server (col.7, lines 9-20) to verify a first node identification associated with the first process (col.3, lines 7-10 and col.18, lines 21-25). Mattaway discloses receiving security context information at the first node from the administrative machine, the security context information comprising a virtual address for the first node (col.7, lines 24-28 and col.18, lines 33-36) and appending the security context information for the first process in a process table (col.18, lines 21-36 and col.20, lines 15-23). A process table obviously is for comparison and matching purposes to verify or validate the received data in the packet (col.18, lines 30-36). The packet comprising the security context information for the first process in the process table (col.22, lines 21-26). Mattaway discloses point-to-

point Internet communication of transmitting a packet from the first process to the second process (col.8, lines 28-29) through the open socket without processing by a server (col.8, line 65 – col.9, line 13). The only purpose is for directory and information related services (col.12, lines 36-41 and col.17, lines 17-18). Thus, Mattaway suggests direct communication link between the first process and the second process without

passing through a server (col.9, lines 52-57 and col.26, lines 18-25).

Therefore, it would have been obvious for a person of ordinary skills in the art to combine Shuen to teach transmitting a packet from the first process to the second process through the open socket (Mattaway on col.8, lines 28-29) without passing through the administrative machine (Mattaway on col.8, line 65 – col.9, line 13) because using a connection server (administrative machine) is for directory and information related services only and to verify a node so that the node can directly communicate with another node (Mattaway on col.12, lines 15-16 and 36-41 and col.26, lines 18-25).

As per claims 17 and 34: See Shuen on col.23, lines 5-30 and col.18, lines 45-55; discusses the method of claim 16, wherein obtaining a node identification further comprises: modifying a socket structure in the socket so that the socket structure accepts the node identification; and modifying a process table so that the table comprises a node identification field.

### As per claim 29:

Shuen teaches a system for placing a process executed in a node in a security context, comprising:

an administrative machine; and (col.13, lines 21-30)

a sending node comprising:

a transmission module that transmit a request an administrative machine (col.23, lines 36-47 and col.25, lines 14-35) to verify a sending node identification (col.7, lines 54-57 and col.16, lines 41-55 and col.22, lines 62-65), and receives security context information from the administrative machine in response to the request (col.23, lines 60-65 and col.25, lines 14-35), wherein the security context information comprises a virtual address for the sending node; (col.9, lines 11-15 and col.13, lines 7-8 and 42-48)

memory containing a process (col.8, lines 19-27 and col.9, lines 32-36) and an associated process table; and (col.18, lines 50-55 and col.23, lines 10-30)

an appending module that appends the received security context information and the sending node identification for the process in the process table (col.15, lines 10-35 and col.18, lines 46-49), wherein the transmission module transmits a packet from the process to a receiving node (col.18, lines 13-23 and col.22, lines 13-15) [without passing through the administrative machine], the packet comprising the security context information for the first process in the process table. (col.18, lines 50-65 and col.25, lines 30-53)

The claimed process associated with a node can broadly be given as a function for communication, routing, connection, session, etc. which usually includes packets or messages of information regarding the communication (col.12, lines 41-50 and col.21, lines 15-26). Shuen discloses a node is also referred as a host or mobile host (col.13, lines 50-52) and the claimed administrative machine as a home router. Shuen explains

the request (col.23, lines 36-47 and col.25, lines 14-35) to verify a first node identification associated with the first process involves the mobile host exchanges information with the home router to respond to the mobile host. The exchanged information is a local address comprising local network number and a local node number that corresponds to the local network number that may be obtained from the router which is valid (col.16, lines 41-55 and col.22, lines 62-65). The constant address corresponding to a virtual network and virtual node number created by the home router and uniquely identifying the mobile host throughout a session (col.7, lines 54-57). This information reads on the claimed first node identification associated with the first process. The constant address is the claimed virtual address where a constant address identifies a mobile host. Since the constant address is referenced to a virtual network number, it is called a virtual address (col.9, lines 11-15 and col.13, lines 7-8 and 42-48). The virtual network number and virtual node number are included in the virtual address (col.16, lines 62-67). The claimed without passing through the administrative machine obviously suggests the mobile host directly communicating with another node and not to the router (col.19, lines 13-15). Shuen discloses a mobile host may use its constant address to initiate sessions with a correspondent host (col.18, lines 60-65 and col.22, lines 13-15) and a sequenced packet exchange is an exchange of information according to a protocol by which two nodes may communicate across the network (col.30, lines 24-34). Shuen obviously suggests a first process transmit a packet to the second process through the open socket. However, Shuen did not

clearly explain transmitting a packet from the first process to the second process through the open socket without passing through the administrative machine.

Mattaway discloses the first processing unit 12 is the claimed first node and the second processing unit as the claimed second node. The claimed administrative machine can broadly be given as a server. Whether it is the connection server or mail server (col.8, line 65 - col.9, line 13 and col.12, lines 21-24), Mattaway's invention is for the first processing unit to establish direct communication links to the second processing unit without interacting or going through any server (col.9, lines 52-57 and col.26, lines 18-25). Mattaway discloses uses the server (col.7, lines 9-20) to verify a first node identification associated with the first process (col.3, lines 7-10 and col.18, lines 21-25). Mattaway discloses receiving security context information at the first node from the administrative machine, the security context information comprising a virtual address for the first node (col.7, lines 24-28 and col.18, lines 33-36) and appending the security context information for the first process in a process table (col.18, lines 21-36 and col.20, lines 15-23). A process table obviously is for comparison and matching purposes to verify or validate the received data in the packet (col.18, lines 30-36). The packet comprising the security context information for the first process in the process table (col.22, lines 21-26). Mattaway discloses point-topoint Internet communication of transmitting a packet from the first process to the second process (col.8, lines 28-29) through the open socket without processing by a server (col.8, line 65 – col.9, line 13). The only purpose is for directory and information related services (col.12, lines 36-41 and col.17, lines 17-18). Thus, Mattaway suggests

direct communication link between the first process and the second process without passing through a server (col.9, lines 52-57 and col.26, lines 18-25).

Therefore, it would have been obvious for a person of ordinary skills in the art to combine Shuen to teach transmitting a packet from the first process to the second process through the open socket (Mattaway on col.8, lines 28-29) without passing through the administrative machine (Mattaway on col.8, line 65 – col.9, line 13) because using a connection server (administrative machine) is for directory and information related services only and to verify a node so that the node can directly communicate with another node (Mattaway on col.12, lines 15-16 and 36-41 and col.26, lines 18-25).

As per claim 30: See Shuen on col.7, lines 54-57 and col.16, lines 41-55 and col.22, lines 62-65; discusses the transmission module further receives a key that corresponds to the sending node identification from the administrative machine.

As per claim 31: See Shuen on col.15, lines 10-35 and Mattaway on col.26, lines 46-50; discusses discussing an encryption module that encrypts the packet transmitted by the process using the key; and an encapsulating module that encapsulates the encrypted packet with a header that comprises the sending node identification.

As per claim 44: See Shuen on col.16, lines 41-55 and col.18, lines 46-49 and col.22, lines 10-14 and 62-65; discusses the computer readable medium of claim 35, wherein the appending module comprises: an obtaining module for obtaining the security context information from a third process, the security context comprising a virtual address and a node identification; and a limiting module for limiting each of the

first, second and third processes to communicate with another process provided that the communicating processes share the same node identification.

As per claim 46: See on Mattaway on col.12, lines 36-38; discusses determining if the first and second process belong to a channel; and accepting the transmitted packet when the first and second process belong to the channel.

As per claim 47: See on Mattaway on col.12, lines 36-38; discusses means for determining if the first and second process belong to a channel; and means for accepting the transmitted packet when the first and second process belong to the channel.

As per claim 48: See on Mattaway on col.12, lines 36-38; discusses determining module for determining if the first and second process belong to a channel; and an accepting module for accepting the transmitted packet when the first and second process belong to the channel.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEYNNA T. HA whose telephone number is (571) 272-3851. The examiner can normally be reached on Monday - Thursday (7:00 - 5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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